

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the Office Action of October 17, 2006 is respectfully requested.

By this Amendment, claims 1-28 have been cancelled, and new claims 29-56 have been added and are currently pending in the application. No new matter has been added by these amendments.

It is first noted that on the form PTO-1449 attached to the Office Action, the Examiner did not consider two of the references submitted with the Information Disclosure Statement filed on November 25, 2003. In particular, the Examiner did not consider DE 69708037T2 and DE 69801871T2. It is also noted that the Examiner did not indicate why these references were not considered. However, it is respectfully submitted that these references should be considered because, as explained on page 3 of the IDS filed November 25, 2003, these references correspond to other references which have already been considered by the Examiner. For the Examiner's convenience, additional copies of the originally filed form PTO-1449 and the two references which have not been considered are submitted along with this Amendment. Consideration of these references is thus respectfully requested.

On page 2 of the Office Action, the Examiner indicated that the title of the invention is not descriptive, and is not in the English language. Thus, the Examiner required that a descriptive, English title be provided. In order to comply with the Examiner's requirement, the title of the present application has been changed to "Adjustable Steering Column." Entry of the amended title is thus respectfully requested.

On page 2 of the Office Action, the Examiner indicated that the specification did not contain the appropriate section headings. Further, on page 3 of the Office Action, the Examiner objected to the abstract because the appearance of "(Fig. 4)" at the bottom of the abstract is superfluous and unnecessary.

In order to make editorial improvements, and in order to address the Examiner's objections, the entire specification and abstract have been reviewed and revised. Due to the number of revisions, the amendments to the specification and abstract have been incorporated into the attached substitute specification and abstract. For the Examiner's benefit, a marked-up copy of the specification and abstract indicating the changes made thereto is also enclosed.

These amendments include the addition of section headings to the specification, and the removal of "(Fig. 4)" from the abstract. No new matter has been added by the revisions. Entry of the substitute specification and abstract is thus respectfully requested.

On pages 4-6 of the Office Action, the Examiner rejected claims 1-8, 13 and 22-27 under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner asserted that the claims are generally narrative in form, and are replete with grammatical errors and indefinite language. In order to address these formal rejections, and in order to place the original claims in a proper form according to U.S. practice, the original claims have been cancelled and replaced with new claims 29-56, and the new claims have been drafted so as to fully comply with all the requirements of 35 U.S.C. § 112. Therefore, it is respectfully submitted that the Examiner's formal rejections under § 112 are not applicable to the new claims.

On pages 6-9 of the Office Action, the Examiner rejected claims 1-8, 13 and 24-27 under 35 U.S.C. § 102(b) as being anticipated by Lutz (US 6,095,012). In addition, on page 10 of the Office Action, claims 22 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lutz in view of Manwaring et al. (US 6,419,269). However, as indicated above, claims 1-28 have been cancelled and replaced with new claims 29-56. For the reasons discussed below, it is respectfully submitted that the new claims are clearly patentable over the prior art of record.

The discussion of the invention provided below makes reference to the specification and figures of the present application. However, these references are made only for the Examiner's benefit, and are not intended to limit the claims.

The present invention is directed to an adjustable steering column which, as described on pages 3-5 of the original specification, is designed to prevent the steering column from being displaced relative to a console unit in the event of an automobile accident. As shown in Figs. 4-6, the adjustable steering column includes a steering spindle 1, a shell unit 3 housing the steering spindle 1, and a console unit 4 which is fixed to a chassis. The console unit 4 has at least one side wall 5 which supports the shell unit 3. The adjustable steering column also includes a securement device operable between an engaged state and a disengaged state, with the securement device including a plurality of securing elements 17, 18, and a tension bolt 10 penetrating openings in the shell unit 3 and in the at least one side wall 5. When the securement device is in the engaged state, the shell unit 3 is unadjustably coupled with the console unit 4 by

the securing elements 17, 18 engaging one another. When the securement device is in the disengaged state, the shell unit 3 is adjustable relative to the console unit 4 in at least one adjustment direction (*e.g.*, in the direction of arrow 33 in Fig. 4).

The securement device also includes a tilting part 26 supported so as to be displaceable relative to a first one of the shell unit 3 and the at least one side wall 5 in one of the at least one adjustment direction, and so as to be nondisplaceable relative to a second one of the shell unit 3 and the at least one side wall 5 in the one of the at least one adjustment direction. One of (a) the tilting part 26 and (b) the first one of the shell unit 3 and the at least one side wall 5 includes clamping edges 36, and the other of (a) the tilting part 26 and (b) the first one of the shell unit 3 and the at least one side wall includes clamping faces 35.

As explained on pages 13 and 14 of the original specification, when the steering column is deformed in the one of the at least one adjustment direction, the tilting part 26 is torqued by the second one of the shell unit 3 and the at least one side wall 5 relative to the first one of the shell unit 3 and the at least one side wall 5 such that the clamping edges 36 dig into the clamping faces 35 so as to inhibit a displacement of the tilting part 26 in the one of the at least one adjustment direction.

New independent claim 29 recites an adjustable steering column comprising a steering spindle, a shell unit housing the steering spindle, and a console unit having at least one side wall which supports the shell unit, with the console unit being fixed to a chassis. The adjustable steering column of claim 29 further comprises a securement device operable between an engaged state and a disengaged state, with the securement device including a plurality of securing elements, and a tension bolt penetrating openings in the shell unit and in the at least one side wall. Claim 29 further recites that the shell unit, the console unit, the plurality of securing elements and the tension bolt have a structure and are arranged such that when the securement device is in the engaged state, the shell unit is unadjustably coupled with the console unit by the securing elements engaging one another, and when the securement device is in the disengaged state, the shell unit is adjustable relative to the console unit in at least one adjustment direction.

The securement device of claim 29 also comprises a tilting part supported so as to be displaceable relative to a first one of the shell unit and the at least one side wall in one of the at least one adjustment direction, and so as to be nondisplaceable relative to a second one of the

shell unit and the at least one side wall in the one of the at least one adjustment direction. Claim 29 further recites that one of (a) the tilting part and (b) the first one of the shell unit and the at least one side wall includes clamping edges, and the other of (a) the tilting part and (b) the first one of the shell unit and the at least one side wall includes clamping faces. Claim 29 also recites that the shell unit, the console unit and the tilting part have a structure and are arranged such that when the steering column is deformed in the one of the at least one adjustment direction, *the tilting part is torqued by the second one of the shell unit and the at least one side wall relative to the first one of the shell unit and the at least one side wall such that the clamping edges dig into the clamping faces so as to inhibit a displacement of the tilting part in the one of the at least one adjustment direction.*

Lutz discloses a steering column which, as shown in Fig. 1, includes a steering column jacket 4 and a support bracket 1. The steering column jacket 1 is adjustably supported between vertical legs 3 of the support bracket 1 by a coupling bolt 10. A first lamella package 11 is attached to the vertical legs 3, and a second lamella package 17 is attached to the steering column jacket 4. The steering column jacket 4 is secured in a desired position by the friction between the layers of the lamella packages, which are pressed against each other by a pressure plate 21. By releasing the pressure plate 21, the steering column jacket 4 can be adjusted relative to the support bracket 1 in a longitudinal direction 27 and a vertical direction 28.

However, Lutz does not disclose a tilting part having a structure such that when the steering column is deformed in an adjustment direction, the tilting part is torqued such that clamping edges dig into clamping faces so as to inhibit a displacement of the tiling part in the adjustment direction, as required by independent claim 29. The Examiner takes the position that the pressure plate 21 of Lutz corresponds to the tilting part of the present invention. However, Lutz only discloses that the pressure plate 21 is used to secure the steering column jacket 4 in a desired position by increasing friction between the layered lamella packages 11, 17. Lutz does not disclose that the pressure plate 21 has a structure such that if the steering column jacket 4 deforms in one of the adjustment directions 27, 28, the pressure plate is torqued by one of the steering column jacket 4 and the vertical legs 3 relative to the other.

Further, the pressure plate 21 of Lutz does not have a structure such that if the steering column jacket 4 deforms in one of the adjustment directions 27, 28, clamping edges on either of

the pressure plate 21 or one of the steering column jacket 4 and the vertical legs 3 dig into clamping faces on the other of the pressure plate 21 and the one of the steering column jacket 4 and the vertical legs 3. It is noted that on page 7 of the Office Action, the Examiner indicates that the contact surfaces of the pressure plate 21 are considered to be clamping edges, that the contact surface of the side wall 3 is considered to be a clamping surface, and that the contact surfaces of the pressure plate 21 engage the contact surface of the side wall 3 via the lamella packages 11, 17. However, Lutz does not disclose that the surfaces referred to by the Examiner dig into each other upon deformation of the steering column jacket 4.

Manwaring discloses a locking system for an adjustable steering column, in which the steering column is locked into place by a rake bolt 54 and a nut 56. Manwaring discloses that the rake bolt 54 is secured by a rake bolt retainer 82 which prevents the nut 56 from rotating. However, Manwaring does not disclose a tilting part having a structure such that when the steering column is deformed in an adjustment direction, the tilting part is torqued such that clamping edges dig into clamping faces so as to inhibit a displacement of the tilting part in the adjustment direction, as required by independent claim 29.


Therefore, it is respectfully submitted that new independent claim 29, as well as claims 30-56 which depend therefrom, are clearly allowable over the prior art of record.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice to that effect is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Christoph KLUKOWSKI et al.

By: 
Walter C. Pledger
Registration No. 55,540
Attorney for Applicants

WCP/akl
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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